

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of :  
: Sashikanth Chandrasekaran, et al. : Confirmation Number: 1436  
: :  
Serial No.: 09/871,853/Patent No.: 7,107,319 : Group Art Unit: 2187  
: :  
Filed: May 31, 2001/Issued: September 12, 2006 : Examiner: Kimberly N. McClean-Mayo  
For: METHOD AND APPARATUS FOR REDUCING LATENCY AND MESSAGE  
TRAFFIC DURING DATA AND LOCK TRANSFER IN A MULTI-NODE  
SYSTEM

**PETITION FOR CERTIFICATE OF CORRECTION**

Attention Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed herein is a Petition for Certificate of Correction. The Certificate of Correction corrects an error in the Assignee. Enclosed is a copy of the original Notice of Assignment Document, reflecting the reel and frame number where the assignment is recorded and proof of the date the assignment was submitted for recordation. Also enclosed is a copy of the recordation assigning this to "Oracle International Corporation" on Reel 013944/Frame 0938 on April 21, 2003. An attorney who is no longer working at this firm inadvertently failed to include the correct assignee name on the PTOL-85B. This error is not the fault of the PTO. Hence, a fee is required, and the Commissioner is authorized to charge the appropriate amount for this request to Deposit Account No. 50-1302.

It is respectfully requested that the Certificate of Correction be issued.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP



Brian D. Hickman  
Registration No. 35,894

Dated: June 28, 2007

2055 Gateway Place, Suite 550  
San Jose, CA 95110-1089  
Tel: (408) 414-1080 ext. 201  
Fax: (408) 414-1076

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,107,319  
APPLICATION NO. : 09/871,853  
ISSUE DATE : September 12, 2006  
INVENTOR(S) : Sashikanth Chandrasekaran

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(73) Assignee:

Delete "Oracle Corporation" and insert --Oracle International Corporation--.

**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

Hickman Palermo Truong & Becker LLP  
2055 Gateway Place, Suite 550  
San Jose, CA 95110

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

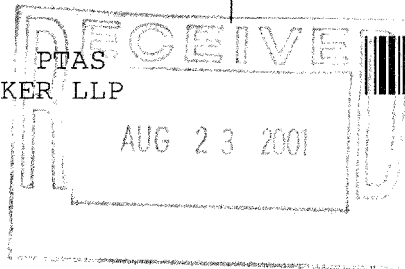


50277-1653 CAE/TB

**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

AUGUST 18, 2001

HICKMAN PALERMO TRUONG & BECKER LLP  
BRIAN D. HICKMAN  
1600 WILLOW STREET  
SAN JOSE, CA 95125



\*101745520A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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RECORDATION DATE: 05/31/2001

REEL/FRAME: 011872/0671  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
CHANDRASEKARAN, SASHIKANTH

DOC DATE: 05/14/2001

ASSIGNOR:  
BROWER, DAVID

DOC DATE: 05/30/2001

ASSIGNOR:  
BAMFORD, ROGER J.

DOC DATE: 05/16/2001

ASSIGNEE:  
ORACLE CORPORATION  
500 ORACLE PARKWAY  
REDWOOD SHORES, CALIFORNIA 94065

SERIAL NUMBER: 09871853  
PATENT NUMBER:

FILING DATE: 05/31/2001  
ISSUE DATE:

DOCKETED

DATES:

8/23/01 R



011872/0671 PAGE 2

JEEVON JONES, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

06-12-2001



101745520

1-31-92

Docket No.: 50277-1653

To the Honorable Commissioner of Patents and

Please record the attached original documents or copy thereto:

## 1. Name of Conveying Party(ies):

SASHIKANTH CHANDRASEKARAN, DAVID BROWER and  
ROGER J. BAMFORD

05/31/01

## 2. Name and address of receiving party(ies):

Name: Oracle Corporation

Internal Address: \_\_\_\_\_

Street Address: 500 Oracle Parkway

City: Redwood Shores State/Country CA ZIP: 94065

Additional name(s) of conveying party(ies) attached? ☐ Yes

## 3. Nature of Conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

Execution Date: May 14, 2001, May 16 2001, May 30, 2001

Additional name(s) & address(es) attached? ☐ Yes

## 4. Application number(s) or patent number(s):

If the document is being filed together with a new application, the execution date of the application is: May 31, 2001

## A. Patent Application No(s).

09/871853

## B. Patent No(s).

Additional numbers attached? ☐ Yes

## 5. Name and address of party to whom correspondence concerning

Document should be mailed:

Name: HICKMAN PALERMO TRUONG &amp; BECKER LLP

Internal Address: \_\_\_\_\_

Street Address: 1600 Willow Street

City: San Jose State: CA Zip: 95125

## 6. Total number of applications and patents involved: 1

## 7. Total fee (37 CFR 3.41)

\$40.00

☒ Enclosed☐ Authorized to be charged to deposit account

## 8. Deposit account number:

50-1302

DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Brian D. Hickman, Registration No. 35,894

May 31, 2001

Name and Registration No. of Person Signing

Signature

Date

Total number of pages comprising cover sheet: 1

CMB No. 0851-0011 (exp. 4/94)

06/06/2001 08:11:11 AM 00000000 00071653

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OID 2000-166-01



Attorney Docket

**ASSIGNMENT****PATENT**

No.: 50277-1653 (OID# 2000-166-01)

conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

**Inventor: Please Sign and Date Below:**May 14 2001

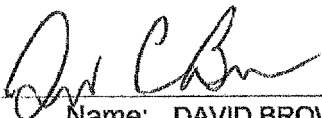
Date



Name: SASHIKANTH CHANDRASEKARAN

May 30 2001

Date



Name: DAVID BROWER

May 16 2001

Date



Name: ROGER J. BAMFORD

1-31-92

Patent and Trademark Office

Docket No.: 50277-1653

## PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereto:

1. Name of Conveying Party(ies):  
SASHIKANTH CHANDRASEKARAN, DAVID BROWER and  
ROGER J. BAMFORD

Additional name(s) of conveying party(ies) attached? ☐ Yes

3. Nature of Conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

Execution Date: May 14, 2001, May 16 2001, May 30, 2001

2. Name and address of receiving party(ies):

Name: Oracle Corporation

Internal Address: \_\_\_\_\_

Street Address: 500 Oracle Parkway

City: Redwood Shores State/Country CA ZIP: 94065

Additional name(s) & address(es) attached? ☐ Yes

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B. Patent No(s).

Additional numbers attached? ☐ Yes5. Name and address of party to whom correspondence concerning  
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Name: HICKMAN PALERMO TRUONG &amp; BECKER LLP

Internal Address: \_\_\_\_\_

Street Address: 1600 Willow Street

City: San Jose State: CA Zip: 95125

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41)

\$40.00

☒ Enclosed☐ Authorized to be charged to deposit account

8. Deposit account number:

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*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy  
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Brian D. Hickman, Registration No. 35,894

May 31, 2001

Name and Registration No. of Person Signing

Signature

Date

Total number of pages comprising cover sheet: 1

CMB No. 0851-0011 (exp. 4/94)







UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

50277-0010

BOW/CF

SEPTEMBER 08, 2003

PTAS

HICKMAN PALERMO TRUONG & BECKER, LLP  
BRIAN D. HICKMAN  
1600 WILLOW STREET  
SAN JOSE, CA 95125

Deputy Under Secretary of Commerce For Intellectual Property and  
Deputy Director of the United States Patent and Trademark Office  
Washington, DC 20231  
www.uspto.gov

SEP 15 2003



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RECORDATION DATE: 04/21/2003

REEL/FRAME: 013944/0938  
NUMBER OF PAGES: 30

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ORACLE CORPORATION

DOC DATE: 04/11/2003

ASSIGNEE:

ORACLE INTERNATIONAL CORPORATION  
500 ORACLE PARKWAY  
REDWOOD SHORES, CALIFORNIA 94065

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ISSUE DATE: 09/09/2003

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ISSUE DATE:

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ISSUE DATE:

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ISSUE DATE:

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ISSUE DATE:

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FILING DATE: 01/05/2001  
ISSUE DATE:

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FILING DATE: 05/31/2001  
ISSUE DATE:

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PATENT NUMBER:

FILING DATE: 12/22/2000  
ISSUE DATE:

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FILING DATE: 06/03/2002  
ISSUE DATE:

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ASSIGNMENT DIVISION  
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U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

Docket No.: 50277-0010

102427151

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereto:

1. Name of Conveying Party(ies):

Oracle Corporation

4-2103

2. Name and address of receiving party(ies):

Name: Oracle International Corporation

Internal Address:

Additional name(s) of conveying party(ies) attached? ☐ Yes

3. Nature of Conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

Street Address: 500 Oracle Parkway

City: Redwood State/Country CA ZIP: 94065

Shores

Execution Date: April 11, 2003

Additional name(s) & address(es) attached? ☐ Yes

4. Application number(s) or patent number(s):

See attached Schedule A, pages 2-15

If the document is being filed together with a new application, the execution date of the application is:

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☒ Yes

5. Name and address of party to whom correspondence concerning

Document should be mailed:

Name: Hickman Palermo Truong &amp; Becker, LLP

Internal Address:

Street Address: 1600 Willow Street

City: San Jose State: CA Zip: 95125

6. Total number of applications and patents involved: 257

7. Total fee (37 CFR 3.41)

\$10,280.00

☒ Enclosed☐ Authorized to be charged to deposit account

8. Deposit account number:

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9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Brian D. Hickman, Registration No. 35,894

April 15, 2003

Name and Registration No. of Person Signing

Signature

Date

Total number of pages comprising cover sheet: 15

CMB No. 0851-0011 (exp. 4/94)

04/22/2003 EDOOPER 00000060 08669689

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**Schedule A**  
**Patent Applications**

|     | Attorney<br>Docket No. | OIC Docket No.         | Appl. No.  | Filing<br>Date | Title   |
|-----|------------------------|------------------------|------------|----------------|---|
| 1.  | 50277-0014             | OID-1995-22            | 08/669,689 | 6/24/96        | Method And Apparatus For Lock Caching   |
| 2.  | 50277-0075             | OID1996-035-01         | 08/794,269 | 2/3/97         | Web Request Broker Controlling Multiple Processes   |
| 3.  | 50277-0125             | OID-1997-011-02        | 09/156,548 | 9/17/98        | Parallel Transaction Recovery   |
| 4.  | 50277-0144             | OID 1997-29-03         | 08/960,556 | 10/31/97       | Data Type Mapping for External Callouts   |
| 5.  | 50277-0183             | OID 1997-006-05<br>PRO | 60/074,587 | 2/13/98        | Cache Fusion  |
| 6.  | 50277-0184             | OID 1997-053-03        | 09/032,176 | 2/27/98        | Using Logical Item Groups to Manage Sourcing Rules and Bills of Distribution in Manufacturing and Distribution Planning |
| 7.  | 50277-0210             | OID 1997-006-06        | 09/298,603 | 4/23/99        | Communication Architecture for Distributed Computing Environment  |
| 8.  | 50277-0235             | OID-1998-001-01        | 09/258,037 | 2/25/99        | Managing The Size And Accessibility Of A Name Service   |
| 9.  | 50277-0236             | OID-1998-002-01        | 09/258,013 | 2/25/99        | Determining The Participants In A Distributed Operation   |
| 10. | 50277-0242             | OID-1997-071-04        | 09/266,046 | 3/10/99        | Using a Resource Manager to Coordinate the Committing of a Distributed Transaction                                      |
| 11. | 50277-0263             | OID 1997-083-01        | 09/266,703 | 3/11/99        | Approach for Performing Administrative Functions in Information Systems   |
| 12. | 50277-0267             | OID-1998-023-01        | 09/347,439 | 7/2/99         | Scalable Multiple Address Space Server  |
| 13. | 50277-0269             | OID-1998-025-01        | 09/405,980 | 9/27/99        | PARTITION PRUNING WITH COMPOSITE PARTITIONING   |
| 14. | 50277-0273             | OID 1998-006-01        | 09/318,518 | 5/25/99        | Extending the Attributes of an Application Generated Using a Fourth Generation Programming Tool                         |
| 15. | 50277-0277             | OID-1998-25-02         | 09/406,482 | 9/27/99        | Parallel Partition-Wise Joins   |
| 16. | 50277-0289             | OID 1999-001-01        | 09/307,043 | 5/7/99         | Resource Locking Approach   |
| 17. | 50277-0290             | OID 1999-002-01<br>PRO | 60/147,538 | 8/5/99         | Versioning in Internet File System (IFS)  |
| 18. | 50277-0297             | OID 1999-011-01        | 09/415,031 | 10/7/99        | Managing Parallel Execution of Work Granules According to Their Affinity  |
| 19. | 50277-0298             | OID 1999-012-01        | 09/415,033 | 10/7/99        | Distributing Workload Between Resources Used to Access Data   |
| 20. | 50277-0299             | OID 1999-002-02        | 09/571,508 | 5/15/00        | Multi-Model Access to Data  |
| 21. | 50277-0300             | OID 1999-002-003       | 09/571,496 | 5/15/00        | File System that Supports Transactions  |

|     | Attorney<br>Docket No | OIC Docket No.      | Appl. No.  | Filing<br>Date | Title   |
|-----|-----------------------|---------------------|------------|----------------|---|
| 22. | 50277-0301            | OID 1999-002-04     | 09/571,060 | 5/15/00        | Stored Query Directories  |
| 23. | 50277-0302            | OID 1999-002-05     | 09/571,036 | 5/15/00        | Event Notification System Tied to File System   |
| 24. | 50277-0304            | OID 1999-002-07     | 09/571,568 | 5/15/00        | On-the-Fly Format Conversion  |
| 25. | 50277-0305            | OID 1999-021-01     | 09/493,660 | 1/28/00        | Techniques For DLM Optimization With Re-Mapping Responsibility For Lock Management  |
| 26. | 50277-0307            | OID 1999-027-01     | 09/360,286 | 7/22/99        | A Method for Computing the Degree of Parallelism in a Multi-User Environment  |
| 27. | 50277-0309            | OID 1999-020-01 PRO | 60/124,774 | 3/17/99        | Single Application to Service an Arbitrary Client   |
| 28. | 50277-0310            | OID 1999-033-01     | 09/513,724 | 2/24/00        | Defining Instead-Of Triggers Over Nested Collection Columns of Views  |
| 29. | 50277-0312            | OID 1999-020-01     | 09/454,515 | 12/6/99        | Providing Clients with Services that Retrieve Data from Data Sources That Do Not Necessarily Support the Format Required by the Clients |
| 30. | 50277-0314            | OID 1999-055-01 PRO | 60/129,658 | 4/16/99        | Multidimensional Repositories for Problem Discovery and Capacity Planning of Oracle Applications (Provisional)                          |
| 31. | 50277-0315            | OID 1999-056-01     | 09/433,827 | 11/3/99        | Finding the Top N Values Through the Execution of a Query   |
| 32. | 50277-0317            | OID 1999-057-01     | 09/436,053 | 11/8/99        | Using Global Temporary Tables to Transform Queries  |
| 33. | 50277-0331            | OID 1999-081-01     | 09/428,295 | 10/27/99       | Transmitting Data Reliably and Efficiently  |
| 34. | 50277-0333            | OID 1999-055-01     | 09/549,824 | 4/14/00        | Multidimensional Repositories for Problem Discovery and Capacity Planning of Database Applications                                      |
| 35. | 50277-0335            | OID-1999-073-01     | 09/478,946 | 1/6/00         | Preserving Consistency of Passively-Replicated Non-Deterministic Objects  |
| 36. | 50277-0342            | OID-1999-122-01     | 09/652,384 | 8/31/00        | Managing Replacement of Data in a Cache on a Node Based On Caches of Other Nodes  |
| 37. | 50277-0345            | OID 1999-129-01 PRO | 60/147,217 | 8/4/99         | Multi-Device Support for Mobile Applications Using XML (Provisional)  |
| 38. | 50277-0346            | OID 1999-114-01PRO  | 60/147,213 | 8/4/99         | Method and System for Business to Business Data Interchange Using XML (Provisional)   |
| 39. | 50277-0351            | OID 1999-114-01     | 09/550,300 | 4/14/00        | Method and System for Business to Business Data Interchange Using XML   |
| 40. | 50277-0352            | OID 1999-129-01     | 09/631,884 | 8/4/00         | Multi-Device Support for Mobile Applications Using XML  |
| 41. | 50277-0353            | OID 1999-002-01     | 09/571,696 | 5/15/00        | Versioning in Internet File System  |

|     | Attorney<br>Docket No | OSC Docket No.                        | Appl. No.  | Filing<br>Date | Title  |
|-----|-----------------------|---------------------------------------|------------|----------------|--|
| 42. | 50277-0356            | OID's-1999-146-01PRO & 1999-147-01PRO | 60/153,464 | 9/9/99         | ACID Compliant Transaction and Distributed Transaction Architecture Across HTTP and Active Simulation to Optimize Transaction Quantums Across HTTP |
| 43. | 50277-0357            | OID-1999-147-01                       | 09/658,658 | 9/8/00         | Monitoring Latency of a Network to Manage Termination of Distributed Transactions  |
| 44. | 50277-0358            | OID-1999-146-01                       | 09/715,955 | 11/17/00       | Asynchronous Transaction Object Management System  |
| 45. | 50277-0367            | OID-1999-093-01                       | 09/675,195 | 9/29/00        | Using Transportable Tablespaces for Hosting Data of Multiple Users   |
| 46. | 50277-0368            | OID 1999-138-01                       | 09/478,945 | 1/6/00         | Indexing Key Ranges  |
| 47. | 50277-0370            | OID-1997-010-09DIV                    | 09/547,191 | 4/11/00        | Object Views for Relational Data (DIVISIONAL)  |
| 48. | 50277-0374            | OID 1999-142-01                       | 09/715,956 | 11/17/00       | Coordinating a Distributed Transaction Between Participants Unable to Follow a Two-Phase Commit  |
| 49. | 50277-0376            | OID-1999-173-01 thru 04 PRO           | 60/166,598 | 11/19/99       | Debugging Techniques and Fast SGA Dumps to File for Deferred Analysis of the Database (Provisional)  |
| 50. | 50277-0377            | OID-1999-173-01                       | 09/649,310 | 8/28/00        | Method and Apparatus for Debugging a Software Program  |
| 51. | 50277-0378            | OID-1999-173-02                       | 09/717,187 | 11/20/00       | Method and Apparatus for Debugging A Software Program Using Dynamic Debug Patches and Copy On Write Views  |
| 52. | 50277-0379            | OID-1999-173-03                       | 09/717,162 | 11/20/00       | Fast Database State Dumps to File for Deferred Analysis of a Database  |
| 53. | 50277-0380            | OID-1999-173-04                       | 09/717,161 | 11/20/00       | A Debug and Data Collection Mechanism Utilizing a Difference in Database State by Using Consecutive Snapshots of the Database State                |
| 54. | 50277-0383            | OID 1999-021-02                       | 09/493,673 | 1/28/00        | Techniques For DLM Optimization With Transferring Lock Information   |
| 55. | 50277-0384            | OID 1999-021-03                       | 09/493,659 | 1/28/00        | Techniques For DLM Optimization With Re-Mastering Events   |
| 56. | 50277-0385            | OID 2000-006-01 PRO                   | 60/184,211 | 2/22/00        | Using One Device to Configure and Emulate Web Site Content to Be Displayed on Another Device   |
| 57. | 50277-0386            | OID 2000-006-01                       | 09/773,982 | 1/31/01        | Using One Device to Configure and Emulate Web Site Content to Be Displayed on Another Device   |
| 58. | 50277-0406            | OID 1999-157-01                       | 09/715,552 | 11/17/00       | Distributing Data Items to Corresponding Buckets for Use in Parallel Operations  |
| 59. | 50277-0407            | OID 1999-094-01                       | 09/565,787 | 5/5/00         | DIAGNOSING CRASHES IN DISTRIBUTED COMPUTING SYSTEMS  |

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| 60. | 50277-0408             | OID 1999-088-01     | 09/630,441 | 8/2/00         | Locally Executed Filtering in Parallel Sort Operations   |
| 61. | 50277-0409             | OID 2000-015-01     | 09/589,602 | 6/7/00         | PARTITIONED ACCESS CONTROL TO A DATABASE (CIP)   |
| 62. | 50277-0410             | OID 1999-166-01     | 09/746,580 | 12/20/00       | TECHNIQUES FOR GRANTING SHARED LOCKS MORE EFFICIENTLY  |
| 63. | 50277-0415             | OID 1999-163-01     | 09/696,434 | 10/24/00       | Using Secondary Resource Masters in conjunction with a Primary Resource Master for Managing Resources that are Accessible to a Plurality of Entities |
| 64. | 50277-1509             | OID 2000-036-01     | 09/656,304 | 9/6/00         | Method and Apparatus for Optimizing Computation of OLAP Ranking  |
| 65. | 50277-1510             | OID 2000-057-01     | 09/873,061 | 5/31/01        | TECHNIQUES FOR AUTOMATICALLY DEVELOPING A WEB SITE   |
| 66. | 50277-1511             | OID 2000-058-01     | 09/872,235 | 5/31/01        | Techniques for Automatically Provisioning a Database Over a Wide Area Network  |
| 67. | 50277-1512             | OID 2000-059-01     | 09/872,234 | 5/31/01        | TECHNIQUES FOR AUTOMATICALLY INSTALLING AND CONFIGURING DATABASE APPLICATIONS  |
| 68. | 50277-1513             | OID 2000-060-01     | 09/872,067 | 5/31/01        | TECHNIQUES FOR PROVIDING OFF-HOST STORAGE FOR A DATABASE APPLICATION   |
| 69. | 50277-1514             | OID 2000-061-01     | 09/872,932 | 5/31/01        | TECHNIQUES FOR AUTOMATICALLY DISCOVERING A DATABASE DEVICE ON A NETWORK  |
| 70. | 50277-1515             | OID 2000-062-01     | 09/873,042 | 5/31/01        | TECHNIQUES FOR MANAGING DATABASE SYSTEMS WITH A COMMUNITY SERVER   |
| 71. | 50277-1517             | OID 2000-041-01     | 09/871,476 | 5/30/01        | Integrating Tablespaces with Different Block Sizes   |
| 72. | 50277-1518             | OID-2000-068-01PRO  | 60/204,196 | 5/12/00        | Techniques and Features of an Internet File System (PRO)   |
| 73. | 50277-1519             | OID-2000-072-01-PRO | 60/230,489 | 9/6/00         | Mobile Device Platform (Provisional)   |
| 74. | 50277-1520             | OID-2000-072-01     | 09/948,057 | 9/5/01         | Customizing Content Provided by a Service (original title was: Mobile Device Platform)   |
| 75. | 50277-1521             | OID-2000-039-01     | 09/771,292 | 1/25/01        | PROCESSING IN PARALLEL UNITS OF WORK THAT PERFORM DML OPERATIONS ON THE SAME SPANNING ROWS   |
| 76. | 50277-1522             | OID-2000-055-01     | 09/851,065 | 5/7/01         | Enabling Intra-Partition Parallelism for Partition-Based Operations  |
| 77. | 50277-1524             | OID 2000-006-02     | 09/729,810 | 12/4/00        | Sharing Information Across Wireless Content Providers  |
| 78. | 50277-1525             | OID 2000-006-03     | 09/751,259 | 12/29/00       | Mobile Surveys and Polling   |

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| 79. | 50277-1526                    | OID 2000-006-04       | 10/095,803       | 3/19/02                | MULTIMODAL SESSION SUPPORT ON DISTINCT MULTI CHANNEL PROTOCOL  |
| 80. | 50277-1528                    | OID-2000-075-01       | 09/797,228       | 2/28/01                | A Method for Fencing Shared Resources from Cluster Nodes   |
| 81. | 50277-1529                    | OID1998-004-01-CIP    | 09/872,896       | 5/31/01                | Virtually Partitioning User Data in a Database System  |
| 82. | 50277-1531                    | OID 1997-47-01        | 09/286,124       | 4/2/99                 | Method and apparatus for facilitating object communication across a network  |
| 83. | 50277-1534                    | OID-1999-160-01       | 09/653,928       | 9/1/00                 | DYNAMIC PERSONALIZED CONTENT RESOLUTION FOR A MEDIA SERVER   |
| 84. | 50277-1541                    | OID-2000-105-01-PRO   | 60/218,851       | 7/13/00                | SQL Spreadsheet Functions  |
| 85. | 50277-1545                    | 2000-078-01           | 09/728,909       | 12/1/00                | Hierarchy-Based Secured Document Repository  |
| 86. | 50277-1546                    | OID-2000-105-01       | 09/886,839       | 6/20/01                | PERFORMING SPREADSHEET-LIKE CALCULATIONS IN A DATABASE SYSTEM  |
| 87. | 50277-1556                    | OID 2000-131-01 PRO   | 60/222,817       | 8/4/00                 | Techniques for Implementing Mobile and Industrial Database Applications (Provisional)  |
| 88. | 50277-1557                    | OID 2000-131-01       | 09/872,066       | 5/31/01                | Maintaining State Information in Mobile Applications   |
| 89. | 50277-1558                    | OID 2000-057-01 PRO   | 60/231,482       | 9/8/00                 | AUTOMATIC WEB SITES WITH DATABASES   |
| 90. | 50277-1561                    | OID 2000-068-01       | 09/853,823       | 5/11/01                | Nested Transactions in a File System   |
| 91. | 50277-1564                    | OID 2000-127-01       | 09/949,020       | 9/6/01                 | METHOD AND APPARATUS FOR XML VISUALIZATION OF A RELATIONAL DATABASE AND UNIVERSAL RESOURCE IDENTIFIERS TO DATABASE DATA AND METADATA |
| 92. | 50277-1565                    | OID 2000-129-01       | 09/948,949       | 9/6/01                 | APPARATUS AND METHOD FOR MAPPING RELATIONAL DATA AND METADATA TO XML   |
| 93. | 50277-1566                    | OID 2000-130-01       | 09/948,998       | 9/6/01                 | METHOD AND APPARATUS FOR FLEXIBLE STORAGE AND UNIFORM MANIPULATION OF XML DATA IN A RELATIONAL DATABASE SYSTEM                       |
| 94. | 50277-1567                    | OID 2000-132-01       | 09/705,433       | 11/3/00                | Adaptive Hosted Text to Speech Processing  |
| 95. | 50277-1575                    | OID 2000-127-01 PRO   | 60/230,878       | 9/7/00                 | XML Data Storage, Query Rewrites, Visualization, Mapping and Referencing   |
| 96. | 50277-1576                    | OID 2000-135-01PRO    | 60/241,959       | 10/19/00               | Data Integrity Verification Mechanism  |

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| 97.  | 50277-1588            | OID 1995-22-DIV1       | 09/798,617 | 3/1/01         | Deadlock Detection Based On Information Stored In Distributed Objects That Participate In A Distributed Lock Management System  |
| 98.  | 50277-1589            | OID 1995-22-DIV2       | 09/798,647 | 3/1/01         | Using Distributed Information About Lock Conversion Requests To Efficiently Manage Lock State Transitions   |
| 99.  | 50277-1590            | OID 1995-22-DIV3       | 09/798,610 | 3/1/01         | Efficiently Initiating Lock State Transitions For Distributed Resource Objects That Participate In A Distributed Lock Management System   |
| 100. | 50277-1591            | OID 1995-22-DIV4       | 09/797,632 | 3/1/01         | Efficiently Distributing Information Used For Lock Management Between Distributed Resource Objects  |
| 101. | 50277-1592            | OID 1995-22-DIV5       | 09/798,620 | 3/1/01         | Efficiently Distributing Information Used For Lock Management Among Distributed Resource Objects Using Sequence Numbers   |
| 102. | 50277-1593            | OID 1995-22-DIV6       | 09/798,618 | 3/1/01         | Using Distributed Information About Lock Conversion Requests To Efficiently Manage Lock State Transitions   |
| 103. | 50277-1594            | OID 1995-22-DIV7       | 09/798,629 | 3/1/01         | Efficient Lock State Transitions In A Distributed System  |
| 104. | 50277-1600            | OID 2000-114-01<br>PRO | 60/240,165 | 10/12/00       | A new object oriented framework to provide an exclusive view of a shared resource that implements efficient task scheduling and monitoring in distributed systems with bounded resources. |
| 105. | 50277-1605            | OID 1997-016-06CON     | 09/676,262 | 9/28/00        | Method and Apparatus for Incorporating State Information Into a URL   |
| 106. | 50277-1606            | OID 2000-153-01        | 09/872,986 | 5/31/01        | Techniques for Navigating in Mobile Applications  |
| 107. | 50277-1607            | OID 2000-154-01        | 09/872,566 | 5/31/01        | Techniques for Supporting Multiple Devices in Mobile Applications   |
| 108. | 50277-1608            | OID 2000-155-01        | 09/872,978 | 5/31/01        | Techniques for Programming Event-Driven Transactions in Mobile Applications   |
| 109. | 50277-1619            | OID 1995-56-39-con     | 09/501,353 | 2/9/00         | Controlled Execution of Partioned Code  |
| 110. | 50277-1621            | OID 2000-158-01PRO     | 60/295,104 | 6/1/01         | Consistent Read in a Distributed Database Environment   |
| 111. | 50277-1632            | OID 2000-114-01        | 09/960,006 | 9/20/01        | Providing An Exclusive View Of A Shared Resource  |
| 112. | 50277-1633            | OID 2000-135-01        | 09/765,680 | 1/18/01        | Data Integrity Verification Mechanism   |
| 113. | 50277-1639            | OID1997-53-04con       | 09/775,886 | 2/2/01         | APPLICATION CODE CONVERSION ARCHITECTURE  |



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| 114. | 50277-1646             | OID 1993-06-CON2-R  | 09/757,399 | 1/5/01         | Method and Apparatus for Implementing Parallel Operations in a Database Management System  |
| 115. | 50277-1653             | OID 2000-166-01     | 09/871,853 | 5/31/01        | Method and Apparatus for Reducing Latency and Message Traffic During Data and Lock Transfer in a Multi-Node System                   |
| 116. | 50277-1678             | OID 1997-11-05CON   | 09/748,408 | 12/22/00       | Method and Apparatus for Making Available Data that was Locked by a Dead Transaction before Rolling Back the Entire Dead Transaction |
| 117. | 50277-1680             | OID 1997-003-02CON  | 09/758,628 | 1/10/01        | Method and Apparatus for Propagating Commit Times Between a Plurality of Database Servers  |
| 118. | 50277-1681             | OID 2000-198-01     | 09/872,267 | 5/31/01        | Techniques for Time-Based Retention of a Reusable Resource   |
| 119. | 50277-1682             | OID 2000-200-01     | 09/872,243 | 5/31/01        | DYNAMIC PARTITIONING OF A REUSABLE RESOURCE  |
| 120. | 50277-1683             | OID 2000-196-01 PRO | 60/293,844 | 5/24/01        | Techniques for Resuming a Transaction after an Error   |
| 121. | 50277-1687             | OID 2001-001-01 PRO | 60/285,577 | 4/20/01        | Method for Web Client Response-Time Measurement  |
| 122. | 50277-1688             | OID 2001-002-01     | 09/863,236 | 5/21/01        | Group Pruning from Cube, Rollup and Grouping Sets  |
| 123. | 50277-1689             | OID 2000-201-01     | 09/947,910 | 9/5/01         | Providing Content from Multiple Services   |
| 124. | 50277-1690             | OID 2000-202-01     | 09/948,135 | 9/5/01         | Accessing Data Stored at an Intermediary from a Service  |
| 125. | 50277-1691             | OID 2000-203-01     | 09/948,056 | 9/5/01         | Developing Applications Online   |
| 126. | 50277-1716             | OID 2001-035-01     | 09/872,646 | 5/31/01        | One Click Deployment   |
| 127. | 50277-1718             | OID 2001-026-01 PRO | 60/274,270 | 3/7/01         | Methods to Perform Disk Writes in a Distributed Shared Disk System Needing Consistency Across Failures                               |
| 128. | 50277-1719             | OID 2001-021-01     | 09/922,424 | 8/3/01         | Victim Selection for Deadlock Detection  |
| 129. | 50277-1724             | OID 1997-010-14 DIV | 09/810,120 | 3/15/01        | Approach for Accessing Large Objects   |
| 130. | 50277-1725             | OID 2001-026-01     | 10/091,618 | 3/4/02         | Methods to Perform Disk Writes in a Distributed Shared Disk System Needing Consistency Across Failures                               |
| 131. | 50277-1732             | OID 2001-020-01     | 10/044,457 | 1/11/02        | VISUALLY ORGANIZING AND HIGHLIGHTING A LIST OF ITEMS TO SHOW HOW THEY SATISFY MULTIPLE CRITERIA SELECTED BY A USER                   |
| 132. | 50277-1734             | OID 2001-032-01     | 09/866,143 | 5/25/01        | Management and Synchronization Application for Network File System   |
| 133. | 50277-1735             | OID 2001-037-01     | 09/912,458 | 7/24/01        | Distributed Service Aggregation and Composition  |
| 134. | 50277-1736             | OID 2001-038-01     | 09/866,111 | 5/25/01        | Mechanism for Automatically Configuring a Network Resource   |



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| 135. | 50277-1737             | OID 2001-036-01     | 10/120,634 | 4/10/02        | Transforming Transactions To Increase Parallelism When Replicating  |
| 136. | 50277-1738             | OID 2001-051-01     | 10/107,106 | 3/26/02        | Incremental Refresh of Materialized Views Containing Rank Function, and Rewrite of Queries Containing Rank or Rownumber or Min/Max Aggregate Functions Using Such A Materialized View |
| 137. | 50277-1744             | OID 1997-06-05-con  | 09/894,640 | 6/27/01        | Using a Checkpoint to Manage Data that is Shared by a Plurality of Nodes  |
| 138. | 50277-1745             | OID 1997-008-09-CON | 09/843,388 | 4/25/01        | Method and System for Controlling Recovery Downtime   |
| 139. | 50277-1746             | OID 2001-066-01     | 10/124,908 | 4/17/02        | Database Management System for Implementing Independent Database Actions in Response to Events of Interest  |
| 140. | 50277-1747             | OID 2001-001-01     | 09/945,160 | 8/31/01        | TECHNIQUES FOR SERVER-CONTROLLED MEASUREMENT OF CLIENT-SIDE PERFORMANCE   |
| 141. | 50277-1748             | OID 2001-052-01     | 10/118,203 | 4/5/02         | Retry Technique for Multi-Tier Network Communication Systems  |
| 142. | 50277-1752             | OID 2001-108-01-PRO | 60/289,716 | 5/8/01         | Customer Relationship Management  |
| 143. | 50277-1753             | OID 2001-108-01     | 09/940,870 | 8/27/01        | Techniques for Managing Resources for Multiple Exclusive Groups   |
| 144. | 50277-1754             | OID 2001-082-01     | 09/968,617 | 9/28/01        | TECHNIQUES FOR PEER-TO-PEER REPLICATION OF OBJECTS IN A RELATIONAL DATABASE   |
| 145. | 50277-1755             | OID 2001-083-01     | 10/006,605 | 12/5/01        | Object-Oriented Materialized Views  |
| 146. | 50277-1756             | OID 2001-084-01     | 09/968,568 | 9/28/01        | Incremental Refresh of Materialized Views For Many-to-Many Relationships  |
| 147. | 50277-1757             | OID 2001-089-01     | 09/967,856 | 9/28/01        | TECHNIQUES FOR ADDING A MASTER IN A DISTRIBUTED DATABASE WITHOUT SUSPENDING DATABASE OPERATIONS AT EXTANT MASTER SITES  |
| 148. | 50277-1758             | OID 2001-091-01     | 09/968,703 | 9/28/01        | Online Reorganization and Redefinition of Relational Database Tables  |
| 149. | 50277-1763             | OID 2001-105-01     | 10/056,716 | 1/22/02        | Semantic Response to Lock Requests to Reduce Coherence Overhead in Multi-Node Systems   |
| 150. | 50277-1764             | OID 2001-054-01     | 09/965,334 | 9/25/01        | TECHNIQUES FOR MODIFYING A COMPILED APPLICATION   |
| 151. | 50277-1766             | OID 2001-125-01     | 10/040,578 | 12/28/01       | Property Bundles on a Per Instance Basis  |
| 152. | 50277-1767             | OID 2001-126-01     | 10/040,500 | 12/28/01       | Categories on a Per Instance Basis  |

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| 153. | 50277-1768             | OID 2001-127-01     | 10/040,499 | 12/28/01       | Policies on a Per Instance Basis   |
| 154. | 50277-1769             | OID 2000-196-01     | 09/993,855 | 11/13/01       | Techniques for Resuming a Transaction after an Error   |
| 155. | 50277-1774             | OID 2001-090-01     | 10/006,543 | 11/30/01       | Techniques for Adding Multiple Security Policies to a Database System  |
| 156. | 50277-1775             | OID 1997-059-01-CON | 09/896,373 | 6/28/01        | Partitioning Ownership of a Database Among Different Database Servers to Control Access to the Database                |
| 157. | 50277-1776             | OID 2001-026-02     | 10/092,047 | 3/4/02         | Managing Checkpoint Queues in a Multiple Node System   |
| 158. | 50277-1777             | OID 2001-145-01 PRO | 60/298,437 | 6/15/01        | MANAGING XML IN A DATABASE   |
| 159. | 50277-1779             | OID 1997-06-05-CON2 | 09/894,636 | 6/27/01        | Transferring a Resource Between Caches of Different Nodes  |
| 160. | 50277-1782             | OID 1997-06-05-CON5 | 09/894,757 | 6/27/01        | Recovering Data from a Failed Cache Using a Surviving Cache  |
| 161. | 50277-1783             | OID 1997-06-05-CON6 | 09/894,635 | 6/27/01        | Managing a Resource Used by a Plurality of Nodes   |
| 162. | 50277-1784             | OID 2001-154-01-PRO | 60/301,310 | 6/26/01        | Business Rule Implementation Framework and Repository for Software Development   |
| 163. | 50277-1786             | OID 2001-149-01     | 09/945,135 | 8/31/01        | Techniques for Managing Configuration for a System of Devices Arranged in a Network                                    |
| 164. | 50277-1787             | OID 2001-150-01     | 09/945,438 | 8/31/01        | Techniques for Managing a Database System Including One or More Database Servers                                       |
| 165. | 50277-1794             | OID 2000-006-04PRO  | 60/306,704 | 7/20/01        | Multimodal Session Support on Distinct Multichannel Protocol   |
| 166. | 50277-1803             | OID 2001-124-01     | 10/154,751 | 5/23/02        | Partition Exchange Loading Technique for Fast Addition of Data to a Data Warehousing System                            |
| 167. | 50277-1804             | OID 2001-112-01     | 10/084,642 | 2/26/02        | Evaluation of Rollups with Distinct Aggregates by Using Sequence of Sorts and Partitioning By Measures                 |
| 168. | 50277-1805             | OID 2001-056-01     | 10/059,616 | 1/28/02        | Incremental Refresh of Materialized Views with Joins and Aggregates after Arbitrary DML Operations to Multiple Tables  |
| 169. | 50277-1806             | OID 2001-180-01     | 09/968,067 | 9/28/01        | Technique for Moving Data Into a Database System   |
| 170. | 50277-1815             | 2000-158-01         | 10/119,672 | 4/9/02         | Consistent Read in a Distributed Database Environment  |
| 171. | 50277-1819             | OID 2001-191-01PRO  | 60/326,052 | 9/28/01        | File Based Access Provided With a Database System  |
| 172. | 50277-1821             | OID 2001-202-01     | 10/077,828 | 2/15/02        | Evaluation of Hierarchical Cubes By Nesting Rollups  |
| 173. | 50277-1822             | OID 2001-203-01     | 10/084,597 | 2/26/02        | Evaluation of Grouping Sets by Reduction to Group-by Clause, with or without a Rollup Operator, Using Temporary Tables |

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| 174. | 50277-1825            | OID 2001-190-01-PRO  | 60/324,722 | 9/24/01        | Functional Specification for Multilanguage Application Debugging Infrastructure, RDBMS/PLSQL/JAVA |
| 175. | 50277-1838            | OID 2001-156-01      | 10/354,692 | 1/29/03        | Operator Approach for Generic Dataflow Designs  |
| 176. | 50277-1840            | OID 2001-198-01      | 10/177,440 | 6/20/02        | Linear Instance Mapping For Query Rewrite   |
| 177. | 50277-1841            | OID 1997-53-01-R     | 10/021,783 | 12/13/01       | Method and Apparatus for Copying Data That Resides in a Database                                  |
| 178. | 50277-1842            | OID 2001-208-01      | 10/155,412 | 5/23/02        | Partition Exchange Technique for Operating a Data Warehousing System                              |
| 179. | 50277-1845            | OID 2001-083-01PRO   | 60/326,275 | 9/28/01        | Object-Oriented Materialized Views  |
| 180. | 50277-1846            | OID 2001-210-01PRO   | 60/326,346 | 9/28/01        | BITMAP JOIN INDEX   |
| 181. | 50277-1847            | OID 2001-084-01-CIP  | 09/969,938 | 10/2/01        | Incremental Refresh of Materialized Views for Many-to-Many Relationships                          |
| 182. | 50277-1849            | OID 2001-211-01PRO   | 60/326,739 | 10/2/01        | IMPLEMENTING AN ETL TOOLKIT IN A DATABASE SYSTEM  |
| 183. | 50277-1850            | OID 2001-199-01      | 10/118,762 | 4/8/02         | Efficient Processing of Multi-Column And Function Based In-List Predicates                        |
| 184. | 50277-1853            | OID 2001-211-01      | 10/159,812 | 5/31/02        | Parallel Transfer of Data from One or More External Sources Into a Database System                |
| 185. | 50277-1854            | OID 2000-135-01CIP1  | 10/133,002 | 4/25/02        | Enhancements to Data Integrity Verification Mechanism   |
| 186. | 50277-1855            | OID 2001-175-01      | 10/160,585 | 5/30/02        | Automatic Discovery and Use of Column Correlations in Tables                                      |
| 187. | 50277-1857            | OID 2001-210-01      | 10/186,461 | 6/28/02        | Techniques for Eliminating Database Table Joins Based on a Join Index                             |
| 188. | 50277-1862            | OID 2001-190-01      | 10/144,144 | 5/10/02        | Techniques for Debugging Computer Programs Involving Multiple Programming Languages               |
| 189. | 50277-1863            | OID 2001-215-01      | 10/160,128 | 5/30/02        | Deferred Piggybacked Messaging Mechanism for Session Reuse  |
| 190. | 50277-1865            | OID 2001-190-02      | 10/143,890 | 5/10/02        | Techniques for Debugging Computer Programs Involving Multiple Computing Machines                  |
| 191. | 50277-1866            | OID 2001-214-01 PRO  | 60/337,359 | 11/30/01       | Realizing Session and Synchronous Semantics Based on Asynchronous Messaging Protocols             |
| 192. | 50277-1869            | OID 2000-111-01      | 10/020,088 | 12/12/01       | COMPUTER-BASED PRE-EXECUTION ANALYSIS AND VERIFICATION UTILITY FOR SHELL SCRIPTS                  |
| 193. | 50277-1870            | OID 2001-154-01-PRO2 | 60/346,736 | 1/7/02         | Generating Applications from XML Defining Structure of Application                                |
| 194. | 50277-1873            | OID 1996-43-02       | 08/873,644 | 6/11/97        | Method and Apparatus for Reducing Inefficiencies Caused by Sending Multiple Commands to a Server  |

|      | <u>Attorney<br/>Docket No.</u> | <u>OIC Docket No.</u> | <u>Appl. No.</u> | <u>Filing<br/>Date</u> | <u>Title</u>   |
|------|--------------------------------|-----------------------|------------------|------------------------|--|
| 195. | 50277-1879                     | OID 2001-214-01       | 10/097,389       | 3/12/02                | Servicing Requests that are Issued in a Protocol other than the Protocol Expected by the Service   |
| 196. | 50277-1889                     | OID 2001-156-01-PRO   | 60/353,796       | 1/30/02                | Operator Approach for Data Flow Design   |
| 197. | 50277-1890                     | OID 2002-012-01-PRO   | 60/353,270       | 2/1/02                 | Rule Based Security System   |
| 198. | 50277-1895                     | OID 2002-013-01       | 10/146,620       | 5/14/02                | Techniques for Generating Rules for a Dynamic Rule-Based System that Responds to Requests for a Resource on a Network                        |
| 199. | 50277-1896                     | OID 2002-012-01       | 10/146,335       | 5/14/02                | Techniques for Dynamic Rule-Based Response to a Request for a Resource on a Network  |
| 200. | 50277-1897                     | OID 2002-031          | 10/173,470       | 6/14/02                | REPRESENTING DELTAS BETWEEN XML VERSIONS USING XSLT  |
| 201. | 50277-1899                     | OID 2002-033          | 10/173,466       | 6/14/02                | REDUCING MEMORY REQUIREMENTS NEEDED TO REPRESENT XML ENTITIES  |
| 202. | 50277-1900                     | OID 2002-034          | 10/171,796       | 6/13/02                | Callback Structures for User Defined DOMs  |
| 203. | 50277-1901                     | OID 2001-194-01-PRO   | 60/379,899       | 5/10/02                | Providing a Useable Version of a Data Item   |
| 204. | 50277-1904                     | OID 2002-023-01       | 10/153,094       | 5/21/02                | Evaluating Queries with Outer Joins by Categorizing and Processing Combinations of Relationships Between Table Records                       |
| 205. | 50277-1922                     | OID 2000-054-01       | 09/540,977       | 3/31/00                | A System for Creating and Maintaining a Web Site   |
| 206. | 50277-1923                     | OID 2000-053-01       | 09/540,092       | 3/31/00                | A Self Service System for Web Site Publishing  |
| 207. | 50277-1938                     | OID 2001-243-01-PRO   | 60/370,963       | 4/8/02                 | Personalized Content Within a Global Namespace   |
| 208. | 50277-1939                     | OID 1997-70-02 CON    | 10/158,757       | 5/29/02                | Method and System for Managing Storage Systems Containing Multiple Data Storage Devices  |
| 209. | 50277-1940                     | OID 1997-71-01-DIV    | 10/125,911       | 4/18/02                | Performing 2-Phase Commit with Presumed Prepare  |
| 210. | 50277-1941                     | OID 2002-045-01       | 10/159,223       | 5/31/02                | Method and Apparatus for Controlling Data Provided to a Mobile Device  |
| 211. | 50277-1943                     | OID 2002-056-01 DIV1  | 10/133,541       | 4/25/02                | Method and Apparatus that Provides a Scalable Media Delivery System  |
| 212. | 50277-1945                     | OID 1999-162-01       | 09/804,672       | 3/9/01                 | System and Method for Maintaining Large-Grained Database Concurrency with a Log Monitor Incorporating Dynamically Redefinable Business Logic |
| 213. | 50277-1947                     | OID 1999-165-01       | 09/662,776       | 9/15/00                | System and Method for Dynamically Evaluating an Electronic Commerce Business Model Through Click Stream Analysis                             |

|      | Attorney<br>Docket No. | OIC Docket No.          | Appl. No.  | Filing<br>Date | Title  |
|------|------------------------|-------------------------|------------|----------------|--|
| 214. | 50277-1949             | OID 1999-182-01         | 09/627,818 | 7/28/00        | System and Method for Performing Data Backups with a Stochastic Scheduler in a Distributed Computing Environment                                   |
| 215. | 50277-1950             | OID 2000-115-01         | 09/654,998 | 8/31/00        | System and Method for Dynamically Generating Web Document Content Using a Rules-Base Engine and Implicit Template Hierarchy                        |
| 216. | 50277-1952             | OID 2000-138-01         | 09/898,407 | 7/3/01         | System and Method for Flexibly Storing Computer Telephony Messages as Structured Objects in a Unified Mail Store                                   |
| 217. | 50277-1953             | OID 2000-184-01         | 09/898,400 | 7/3/01         | System and Method for Providing Access to a Unified Message Store Logically Storing Computer Telephony Messages                                    |
| 218. | 50277-1955             | OID 2000-167-01         | 10/073,669 | 2/11/02        | System and Method for Providing a Java Code Release Infrastructure with Granular Code Patching   |
| 219. | 50277-1956             | OID 2000-191-01<br>PRO  | 60/272,386 | 2/28/01        | System and Method for Providing Highly Available Database Performance  |
| 220. | 50277-1957             | OID 2000-191-01         | 10/086,782 | 2/28/02        | System and Method for Providing Cooperative Resource Groups for High Availability Applications   |
| 221. | 50277-1958             | OID 2000-192-01         | 10/086,949 | 2/28/02        | System and Method for Providing Out-of-Band Notification of Service Changes  |
| 222. | 50277-1959             | OID 2000-193-01         | 10/087,494 | 2/28/02        | System and Method for Detecting Termination of an Application Instance Using Locks   |
| 223. | 50277-1960             | OID 2000-195-01         | 10/086,842 | 2/28/02        | System and Method for Pre-Compiling a Source Cursor into a Target Library Cache  |
| 224. | 50277-1961             | OID 2001-129-01         | 09/998,095 | 11/30/01       | System and Method for Actively Managing an Enterprise of Configurable Components   |
| 225. | 50277-1963             | OID 2001-176-01         | 09/997,759 | 11/30/01       | Application-Independent System and Process for Dynamically Generating Low-Complexity Graphics Embedded as Web Content Using a Tag-Delimited Script |
| 226. | 50277-1964             | OID 2001-197-01<br>PRO  | 60/335,653 | 10/24/01       | Construction Descriptor Segment for Constructing Objects/Record Instances  |
| 227. | 50277-1965             | OID 2001-243-01<br>PRO2 | 60/372,186 | 4/12/02        | Approach for Personalized Content Within a Global Namespace  |
| 228. | 50277-1966             | OID 2002-062-01<br>PRO  | 60/375,726 | 4/26/02        | Integrating Online Analytical Processing (OLAP) Functions Into A Relational Database Management System (RDBMS)                                     |
| 229. | 50277-1972             | OID 2001-262-01<br>PRO  | 60/340,146 | 12/14/01       | Eye Tracking in Web Search Tasks: Design Implications  |

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|------|--------------------------------|----------------------------|------------------|------------------------|--|
| 230. | 50277-1973                     | OID 2002-064-01<br>PRO     | 60/379,870       | 5/10/02                | Online Analytical Processing (OLAP) Operations and Access Structures for Data Stored in a Relational Database  |
| 231. | 50277-1983                     | OID 2002-070-01<br>PRO     | 60/378,800       | 5/7/02                 | SQL Access to Data that Provides a File System Abstraction   |
| 232. | 50277-1984                     | OID 1993-06-<br>CON2-R-DIV | 10/153,983       | 5/22/02                | Method and Apparatus for Implementing Parallel Operations in a Database Management System                      |
| 233. | 50277-1985                     | OID 1997-069-01-<br>CON    | 10/171,728       | 5/28/02                | Maintenance of Hierarchical Index in a Relational System   |
| 234. | 50277-1986                     | OID 2001-210-01-<br>PRO2   | 60/378,841       | 5/7/02                 | Techniques for Eliminating Database Table Joins Based on a Join Index  |
| 235. | 50277-1987                     | OID 2001-175-01-<br>PRO    | 60/378,844       | 5/7/02                 | Automatic Discovery and Use of Column Correlations in Tables   |
| 236. | 50277-1988                     | OID 2001-215-<br>01PRO     | 60/378,875       | 5/7/02                 | Deferred Piggybacked Messaging Mechanism for Session Reuse   |
| 237. | 50277-1989                     | OID 2001-235-<br>01PRO     | 60/378,872       | 5/7/02                 | Providing Common Memory Management Code to Objects That Are Instances of Different Classes                     |
| 238. | 50277-1990                     | OID 2001-236-<br>01PRO     | 60/378,871       | 5/7/02                 | Simplified Deallocation of Memory For Programming Objects  |
| 239. | 50277-1991                     | OID 2002-053-01<br>PRO     | 60/378,018       | 5/10/02                | Managing Expressions in a Database System  |
| 240. | 50277-1994                     | OID 2001-189-01<br>PRO     | 60/385,020       | 5/30/02                | Method and Apparatus for Exchanging Communications Between Heterogeneous Applications                          |
| 241. | 50277-1995                     | OID 2001-208-01<br>PRO     | 60/379,069       | 5/8/02                 | Partition Exchange Technique for Operating a Database System   |
| 242. | 50277-1996                     | OID 2001-211-01<br>PRO     | 60/379,072       | 5/8/02                 | Automatic Parallel Access of External Data via External Tables   |
| 243. | 50277-1998                     | OID 2002-034-<br>PRO       | 60/379,089       | 5/8/02                 | Call Back Structures for User Defined DOMs   |
| 244. | 50277-2002                     | OID 2002-024-01<br>PRO     | 60/379,827       | 5/10/02                | Techniques for Determining Effects on System Performance of a Memory Management Parameter                      |
| 245. | 50277-2003                     | OID 2001-255-01<br>PRO     | 60/379,890       | 5/10/02                | System and Method for Providing a Client-Server Application Testing Framework for Network-Enabled Applications |
| 246. | 50277-2004                     | OID 2002-070-02<br>PRO     | 60/379,872       | 5/10/02                | Versioning XDB   |
| 247. | 50277-2005                     | OID 2001-157-01<br>PRO     | 60/382,360       | 5/20/02                | Footnotes in Online Oracle Reference Manuals   |
| 248. | 50277-2007                     | OID 2002-088-01<br>PRO     | 60/378,016       | 5/10/02                | Time Based Sharing of Flashback-Cursors  |
| 249. | 50277-2008                     | OID 2001-170-02            | 10/144,439       | 5/10/02                | Schema Evolution of Complex Objects  |
| 250. | 50277-2023                     | OID 2002-099-01-<br>PRO    | 60/383,498       | 5/24/02                | Dynamic Disk Space Management in a Cluster Configuration   |
| 251. | 50277-2025                     | OID 2002-031-<br>PRO       | 60/384,693       | 5/31/02                | Representing Deltas Between Versions Using XSLT  |



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|------|------------------------|----------------------|------------|----------------|--|
| 252. | 50277-2026             | OID 2001-226-01-PRO  | 60/384,206 | 5/29/02        | Platform Independent Core Dump Analysis  |
| 253. | 50277-2027             | OID 1998-14-01 CON   | 10/167,207 | 6/10/02        | Anticipatory Lock Mode Conversions in a Lock Management System                             |
| 254. | 50277-2031             | OID 2001-235-01-PRO2 | 60/384,647 | 5/31/02        | Providing Common Memory Management Code to Objects that are Instances of Different Classes |
| 255. | 50277-2032             | OID 2001-236-01-PRO2 | 60/384,646 | 5/31/02        | Simplified Deallocation of Memory for Programming Objects                                  |
| 256. | 50277-2033             | OID 2002-033-PRO     | 60/384,583 | 5/31/02        | REDUCING MEMORY REQUIREMENTS NEEDED TO REPRESENT XML ENTITIES                              |
| 257. | 50277-2034             | OID 2001-197-01-PRO2 | 60/385,543 | 6/3/02         | Constructor Descriptor Segment for Constructing Object/Record Instances                    |

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

**PATENT ASSIGNMENT**

**WHEREAS**, in consideration of good and valuable consideration, the receipt of which is hereby acknowledged, **Oracle Corporation**, a corporation of Delaware, with a place of business at 500 Oracle Parkway, Redwood Shores, California 94065, hereinafter referred to as "**Assignor**," has sold, assigned, transferred and set over, unto **Oracle International Corporation (OIC)**, a corporation of California, with a place of business at 500 Oracle Parkway, Redwood Shores, California 94065, hereinafter referred to as "**Assignee**," its successors, legal representatives and assigns, **Assignor's** entire right, title and interest in, to, and under the issued patents and provisional and non-provisional pending applications listed on the attached Schedule A, as well as any divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for inventions embodied by said pending applications in any country or countries foreign to the United States, and all Letters Patent which may be granted for said inventions embodied by said pending applications in any country or countries foreign to the United States and all extensions, renewals and reissues thereof and all rights of priority in any such country or countries based upon the filing of said pending applications in the United States which are created by any law, treaty or international convention; and **Assignor** hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty is to issue patents on any such applications as aforesaid, to issue all Letters Patent for said inventions to **Oracle International Corporation**, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

**AND** Assignor does hereby covenant that it had full right to convey the entire interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith.

**AND** Assignor does further hereby covenant and agree that it will communicate to said Assignee, its successors, legal representatives and assigns, any facts known to it respecting said pending applications, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything reasonably necessary to aid said Assignee, its successors, legal representatives and assigns, to obtain and enforce any attendant rights in all countries.



**Schedule A**  
**Patent Applications**

|     | <u>Attorney<br/>Docket No</u> | <u>OIC Docket No.</u>  | <u>Appl. No.</u> | <u>Filing<br/>Date</u> | <u>Title</u>  |
|-----|-------------------------------|------------------------|------------------|------------------------|---|
| 1.  | 50277-0014                    | OID-1995-22            | 08/669,689       | 6/24/96                | Method And Apparatus For Lock Caching   |
| 2.  | 50277-0075                    | OID1996-035-01         | 08/794,269       | 2/3/97                 | Web Request Broker Controlling Multiple Processes   |
| 3.  | 50277-0125                    | OID-1997-011-02        | 09/156,548       | 9/17/98                | Parallel Transaction Recovery   |
| 4.  | 50277-0144                    | OID 1997-29-03         | 08/960,556       | 10/31/97               | Data Type Mapping for External Callouts   |
| 5.  | 50277-0183                    | OID 1997-006-05<br>PRO | 60/074,587       | 2/13/98                | Cache Fusion  |
| 6.  | 50277-0184                    | OID 1997-053-03        | 09/032,176       | 2/27/98                | Using Logical Item Groups to Manage Sourcing Rules and Bills of Distribution in Manufacturing and Distribution Planning |
| 7.  | 50277-0210                    | OID 1997-006-06        | 09/298,603       | 4/23/99                | Communication Architecture for Distributed Computing Environment  |
| 8.  | 50277-0235                    | OID-1998-001-01        | 09/258,037       | 2/25/99                | Managing The Size And Accessibility Of A Name Service   |
| 9.  | 50277-0236                    | OID-1998-002-01        | 09/258,013       | 2/25/99                | Determining The Participants In A Distributed Operation   |
| 10. | 50277-0242                    | OID-1997-071-04        | 09/266,046       | 3/10/99                | Using a Resource Manager to Coordinate the Committing of a Distributed Transaction                                      |
| 11. | 50277-0263                    | OID 1997-083-01        | 09/266,703       | 3/11/99                | Approach for Performing Administrative Functions in Information Systems   |
| 12. | 50277-0267                    | OID-1998-023-01        | 09/347,439       | 7/2/99                 | Scalable Multiple Address Space Server  |
| 13. | 50277-0269                    | OID-1998-025-01        | 09/405,980       | 9/27/99                | PARTITION PRUNING WITH COMPOSITE PARTITIONING   |
| 14. | 50277-0273                    | OID 1998-006-01        | 09/318,518       | 5/25/99                | Extending the Attributes of an Application Generated Using a Fourth Generation Programming Tool                         |
| 15. | 50277-0277                    | OID-1998-25-02         | 09/406,482       | 9/27/99                | Parallel Partition-Wise Joins   |
| 16. | 50277-0289                    | OID 1999-001-01        | 09/307,043       | 5/7/99                 | Resource Locking Approach   |
| 17. | 50277-0290                    | OID 1999-002-01<br>PRO | 60/147,538       | 8/5/99                 | Versioning in Internet File System (IFS)  |
| 18. | 50277-0297                    | OID 1999-011-01        | 09/415,031       | 10/7/99                | Managing Parallel Execution of Work Granules According to Their Affinity  |
| 19. | 50277-0298                    | OID 1999-012-01        | 09/415,033       | 10/7/99                | Distributing Workload Between Resources Used to Access Data   |
| 20. | 50277-0299                    | OID 1999-002-02        | 09/571,508       | 5/15/00                | Multi-Model Access to Data  |
| 21. | 50277-0300                    | OID 1999-002-003       | 09/571,496       | 5/15/00                | File System that Supports Transactions  |

|     | Attorney<br>Docket No | OIC Docket No.         | Appl. No.  | Filing<br>Date | Title   |
|-----|-----------------------|------------------------|------------|----------------|---|
| 22. | 50277-0301            | OID 1999-002-04        | 09/571,060 | 5/15/00        | Stored Query Directories  |
| 23. | 50277-0302            | OID 1999-002-05        | 09/571,036 | 5/15/00        | Event Notification System Tied to File System   |
| 24. | 50277-0304            | OID 1999-002-07        | 09/571,568 | 5/15/00        | On-the-Fly Format Conversion  |
| 25. | 50277-0305            | OID 1999-021-01        | 09/493,660 | 1/28/00        | Techniques For DLM Optimization With Re-Mapping Responsibility For Lock Management  |
| 26. | 50277-0307            | OID 1999-027-01        | 09/360,286 | 7/22/99        | A Method for Computing the Degree of Parallelism in a Multi-User Environment  |
| 27. | 50277-0309            | OID 1999-020-01<br>PRO | 60/124,774 | 3/17/99        | Single Application to Service an Arbitrary Client   |
| 28. | 50277-0310            | OID 1999-033-01        | 09/513,724 | 2/24/00        | Defining Instead-Of Triggers Over Nested Collection Columns of Views  |
| 29. | 50277-0312            | OID 1999-020-01        | 09/454,515 | 12/6/99        | Providing Clients with Services that Retrieve Data from Data Sources That Do Not Necessarily Support the Format Required by the Clients |
| 30. | 50277-0314            | OID 1999-055-01<br>PRO | 60/129,658 | 4/16/99        | Multidimensional Repositories for Problem Discovery and Capacity Planning of Oracle Applications (Provisional)                          |
| 31. | 50277-0315            | OID 1999-056-01        | 09/433,827 | 11/3/99        | Finding the Top N Values Through the Execution of a Query   |
| 32. | 50277-0317            | OID 1999-057-01        | 09/436,053 | 11/8/99        | Using Global Temporary Tables to Transform Queries  |
| 33. | 50277-0331            | OID 1999-081-01        | 09/428,295 | 10/27/99       | Transmitting Data Reliably and Efficiently  |
| 34. | 50277-0333            | OID 1999-055-01        | 09/549,824 | 4/14/00        | Multidimensional Repositories for Problem Discovery and Capacity Planning of Database Applications                                      |
| 35. | 50277-0335            | OID-1999-073-01        | 09/478,946 | 1/6/00         | Preserving Consistency of Passively-Replicated Non-Deterministic Objects  |
| 36. | 50277-0342            | OID-1999-122-01        | 09/652,384 | 8/31/00        | Managing Replacement of Data in a Cache on a Node Based On Caches of Other Nodes  |
| 37. | 50277-0345            | OID 1999-129-01<br>PRO | 60/147,217 | 8/4/99         | Multi-Device Support for Mobile Applications Using XML (Provisional)  |
| 38. | 50277-0346            | OID 1999-114-01<br>PRO | 60/147,213 | 8/4/99         | Method and System for Business to Business Data Interchange Using XML (Provisional)   |
| 39. | 50277-0351            | OID 1999-114-01        | 09/550,300 | 4/14/00        | Method and System for Business to Business Data Interchange Using XML   |
| 40. | 50277-0352            | OID 1999-129-01        | 09/631,884 | 8/4/00         | Multi-Device Support for Mobile Applications Using XML  |
| 41. | 50277-0353            | OID 1999-002-01        | 09/571,696 | 5/15/00        | Versioning in Internet File System  |

|     | Attorney<br>Docket No | OIC Docket No.                        | Appl. No.  | Filing<br>Date | Title  |
|-----|-----------------------|---------------------------------------|------------|----------------|--|
| 42. | 50277-0356            | OID's-1999-146-01PRO & 1999-147-01PRO | 60/153,464 | 9/9/99         | ACID Compliant Transaction and Distributed Transaction Architecture Across HTTP and Active Simulation to Optimize Transaction Quantums Across HTTP |
| 43. | 50277-0357            | OID-1999-147-01                       | 09/658,658 | 9/8/00         | Monitoring Latency of a Network to Manage Termination of Distributed Transactions  |
| 44. | 50277-0358            | OID-1999-146-01                       | 09/715,955 | 11/17/00       | Asynchronous Transaction Object Management System  |
| 45. | 50277-0367            | OID-1999-093-01                       | 09/675,195 | 9/29/00        | Using Transportable Tablespaces for Hosting Data of Multiple Users   |
| 46. | 50277-0368            | OID 1999-138-01                       | 09/478,945 | 1/6/00         | Indexing Key Ranges  |
| 47. | 50277-0370            | OID-1997-010-09DIV                    | 09/547,191 | 4/11/00        | Object Views for Relational Data (DIVISIONAL)  |
| 48. | 50277-0374            | OID 1999-142-01                       | 09/715,956 | 11/17/00       | Coordinating a Distributed Transaction Between Participants Unable to Follow a Two-Phase Commit  |
| 49. | 50277-0376            | OID-1999-173-01 thru 04 PRO           | 60/166,598 | 11/19/99       | Debugging Techniques and Fast SGA Dumps to File for Deferred Analysis of the Database (Provisional)  |
| 50. | 50277-0377            | OID-1999-173-01                       | 09/649,310 | 8/28/00        | Method and Apparatus for Debugging a Software Program  |
| 51. | 50277-0378            | OID-1999-173-02                       | 09/717,187 | 11/20/00       | Method and Apparatus for Debugging A Software Program Using Dynamic Debug Patches and Copy On Write Views  |
| 52. | 50277-0379            | OID-1999-173-03                       | 09/717,162 | 11/20/00       | Fast Database State Dumps to File for Deferred Analysis of a Database  |
| 53. | 50277-0380            | OID-1999-173-04                       | 09/717,161 | 11/20/00       | A Debug and Data Collection Mechanism Utilizing a Difference in Database State by Using Consecutive Snapshots of the Database State                |
| 54. | 50277-0383            | OID 1999-021-02                       | 09/493,673 | 1/28/00        | Techniques For DLM Optimization With Transferring Lock Information   |
| 55. | 50277-0384            | OID 1999-021-03                       | 09/493,659 | 1/28/00        | Techniques For DLM Optimization With Re-Mastering Events   |
| 56. | 50277-0385            | OID 2000-006-01 PRO                   | 60/184,211 | 2/22/00        | Using One Device to Configure and Emulate Web Site Content to Be Displayed on Another Device   |
| 57. | 50277-0386            | OID 2000-006-01                       | 09/773,982 | 1/31/01        | Using One Device to Configure and Emulate Web Site Content to Be Displayed on Another Device   |
| 58. | 50277-0406            | OID 1999-157-01                       | 09/715,552 | 11/17/00       | Distributing Data Items to Corresponding Buckets for Use in Parallel Operations  |
| 59. | 50277-0407            | OID 1999-094-01                       | 09/565,787 | 5/5/00         | DIAGNOSING CRASHES IN DISTRIBUTED COMPUTING SYSTEMS  |

|     | Attorney<br>Docket No. | OIC Docket No.      | Appl. No.  | Filing<br>Date | Title  |
|-----|------------------------|---------------------|------------|----------------|--|
| 60. | 50277-0408             | OID 1999-088-01     | 09/630,441 | 8/2/00         | Locally Executed Filtering in Parallel Sort Operations   |
| 61. | 50277-0409             | OID 2000-015-01     | 09/589,602 | 6/7/00         | PARTITIONED ACCESS CONTROL TO A DATABASE (CIP)   |
| 62. | 50277-0410             | OID 1999-166-01     | 09/746,580 | 12/20/00       | TECHNIQUES FOR GRANTING SHARED LOCKS MORE EFFICIENTLY  |
| 63. | 50277-0415             | OID 1999-163-01     | 09/696,434 | 10/24/00       | Using Secondary Resource Masters in conjunction with a Primary Resource Master for Managing Resources that are Accessible to a Plurality of Entities |
| 64. | 50277-1509             | OID 2000-036-01     | 09/656,304 | 9/6/00         | Method and Apparatus for Optimizing Computation of OLAP Ranking  |
| 65. | 50277-1510             | OID 2000-057-01     | 09/873,061 | 5/31/01        | TECHNIQUES FOR AUTOMATICALLY DEVELOPING A WEB SITE   |
| 66. | 50277-1511             | OID 2000-058-01     | 09/872,235 | 5/31/01        | Techniques for Automatically Provisioning a Database Over a Wide Area Network  |
| 67. | 50277-1512             | OID 2000-059-01     | 09/872,234 | 5/31/01        | TECHNIQUES FOR AUTOMATICALLY INSTALLING AND CONFIGURING DATABASE APPLICATIONS  |
| 68. | 50277-1513             | OID 2000-060-01     | 09/872,067 | 5/31/01        | TECHNIQUES FOR PROVIDING OFF-HOST STORAGE FOR A DATABASE APPLICATION   |
| 69. | 50277-1514             | OID 2000-061-01     | 09/872,932 | 5/31/01        | TECHNIQUES FOR AUTOMATICALLY DISCOVERING A DATABASE DEVICE ON A NETWORK  |
| 70. | 50277-1515             | OID 2000-062-01     | 09/873,042 | 5/31/01        | TECHNIQUES FOR MANAGING DATABASE SYSTEMS WITH A COMMUNITY SERVER   |
| 71. | 50277-1517             | OID 2000-041-01     | 09/871,476 | 5/30/01        | Integrating Tablespaces with Different Block Sizes   |
| 72. | 50277-1518             | OID-2000-068-01PRO  | 60/204,196 | 5/12/00        | Techniques and Features of an Internet File System (PRO)   |
| 73. | 50277-1519             | OID-2000-072-01-PRO | 60/230,489 | 9/6/00         | Mobile Device Platform (Provisional)   |
| 74. | 50277-1520             | OID-2000-072-01     | 09/948,057 | 9/5/01         | Customizing Content Provided by a Service (original title was: Mobile Device Platform)   |
| 75. | 50277-1521             | OID-2000-039-01     | 09/771,292 | 1/25/01        | PROCESSING IN PARALLEL UNITS OF WORK THAT PERFORM DML OPERATIONS ON THE SAME SPANNING ROWS   |
| 76. | 50277-1522             | OID-2000-055-01     | 09/851,065 | 5/7/01         | Enabling Intra-Partition Parallelism for Partition-Based Operations  |
| 77. | 50277-1524             | OID 2000-006-02     | 09/729,810 | 12/4/00        | Sharing Information Across Wireless Content Providers  |
| 78. | 50277-1525             | OID 2000-006-03     | 09/751,259 | 12/29/00       | Mobile Surveys and Polling   |

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| 79. | 50277-1526            | OID 2000-006-04     | 10/095,803 | 3/19/02        | MULTIMODAL SESSION SUPPORT ON DISTINCT MULTI CHANNEL PROTOCOL  |
| 80. | 50277-1528            | OID-2000-075-01     | 09/797,228 | 2/28/01        | A Method for Fencing Shared Resources from Cluster Nodes   |
| 81. | 50277-1529            | OID1998-004-01-CIP  | 09/872,896 | 5/31/01        | Virtually Partitioning User Data in a Database System  |
| 82. | 50277-1531            | OID 1997-47-01      | 09/286,124 | 4/2/99         | Method and apparatus for facilitating object communication across a network  |
| 83. | 50277-1534            | OID-1999-160-01     | 09/653,928 | 9/1/00         | DYNAMIC PERSONALIZED CONTENT RESOLUTION FOR A MEDIA SERVER   |
| 84. | 50277-1541            | OID-2000-105-01-PRO | 60/218,851 | 7/13/00        | SQL Spreadsheet Functions  |
| 85. | 50277-1545            | 2000-078-01         | 09/728,909 | 12/1/00        | Hierarchy-Based Secured Document Repository  |
| 86. | 50277-1546            | OID-2000-105-01     | 09/886,839 | 6/20/01        | PERFORMING SPREADSHEET-LIKE CALCULATIONS IN A DATABASE SYSTEM  |
| 87. | 50277-1556            | OID 2000-131-01 PRO | 60/222,817 | 8/4/00         | Techniques for Implementing Mobile and Industrial Database Applications (Provisional)  |
| 88. | 50277-1557            | OID 2000-131-01     | 09/872,066 | 5/31/01        | Maintaining State Information in Mobile Applications   |
| 89. | 50277-1558            | OID 2000-057-01 PRO | 60/231,482 | 9/8/00         | AUTOMATIC WEB SITES WITH DATABASES   |
| 90. | 50277-1561            | OID 2000-068-01     | 09/853,823 | 5/11/01        | Nested Transactions in a File System   |
| 91. | 50277-1564            | OID 2000-127-01     | 09/949,020 | 9/6/01         | METHOD AND APPARATUS FOR XML VISUALIZATION OF A RELATIONAL DATABASE AND UNIVERSAL RESOURCE IDENTIFIERS TO DATABASE DATA AND METADATA |
| 92. | 50277-1565            | OID 2000-129-01     | 09/948,949 | 9/6/01         | APPARATUS AND METHOD FOR MAPPING RELATIONAL DATA AND METADATA TO XML   |
| 93. | 50277-1566            | OID 2000-130-01     | 09/948,998 | 9/6/01         | METHOD AND APPARATUS FOR FLEXIBLE STORAGE AND UNIFORM MANIPULATION OF XML DATA IN A RELATIONAL DATABASE SYSTEM                       |
| 94. | 50277-1567            | OID 2000-132-01     | 09/705,433 | 11/3/00        | Adaptive Hosted Text to Speech Processing  |
| 95. | 50277-1575            | OID 2000-127-01 PRO | 60/230,878 | 9/7/00         | XML Data Storage, Query Rewrites, Visualization, Mapping and Referencing   |
| 96. | 50277-1576            | OID 2000-135-01PRO  | 60/241,959 | 10/19/00       | Data Integrity Verification Mechanism  |

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| 97.  | 50277-1588            | OID 1995-22-DIV1       | 09/798,617 | 3/1/01         | Deadlock Detection Based On Information Stored In Distributed Objects That Participate In A Distributed Lock Management System  |
| 98.  | 50277-1589            | OID 1995-22-DIV2       | 09/798,647 | 3/1/01         | Using Distributed Information About Lock Conversion Requests To Efficiently Manage Lock State Transitions   |
| 99.  | 50277-1590            | OID 1995-22-DIV3       | 09/798,610 | 3/1/01         | Efficiently Initiating Lock State Transitions For Distributed Resource Objects That Participate In A Distributed Lock Management System   |
| 100. | 50277-1591            | OID 1995-22-DIV4       | 09/797,632 | 3/1/01         | Efficiently Distributing Information Used For Lock Management Between Distributed Resource Objects  |
| 101. | 50277-1592            | OID 1995-22-DIV5       | 09/798,620 | 3/1/01         | Efficiently Distributing Information Used For Lock Management Among Distributed Resource Objects Using Sequence Numbers   |
| 102. | 50277-1593            | OID 1995-22-DIV6       | 09/798,618 | 3/1/01         | Using Distributed Information About Lock Conversion Requests To Efficiently Manage Lock State Transitions   |
| 103. | 50277-1594            | OID 1995-22-DIV7       | 09/798,629 | 3/1/01         | Efficient Lock State Transitions In A Distributed System  |
| 104. | 50277-1600            | OID 2000-114-01<br>PRO | 60/240,165 | 10/12/00       | A new object oriented framework to provide an exclusive view of a shared resource that implements efficient task scheduling and monitoring in distributed systems with bounded resources. |
| 105. | 50277-1605            | OID 1997-016-06CON     | 09/676,262 | 9/28/00        | Method and Apparatus for Incorporating State Information Into a URL   |
| 106. | 50277-1606            | OID 2000-153-01        | 09/872,986 | 5/31/01        | Techniques for Navigating in Mobile Applications  |
| 107. | 50277-1607            | OID 2000-154-01        | 09/872,566 | 5/31/01        | Techniques for Supporting Multiple Devices in Mobile Applications   |
| 108. | 50277-1608            | OID 2000-155-01        | 09/872,978 | 5/31/01        | Techniques for Programming Event-Driven Transactions in Mobile Applications   |
| 109. | 50277-1619            | OID 1995-56-39-con     | 09/501,353 | 2/9/00         | Controlled Execution of Partioned Code  |
| 110. | 50277-1621            | OID 2000-158-01PRO     | 60/295,104 | 6/1/01         | Consistent Read in a Distributed Database Environment   |
| 111. | 50277-1632            | OID 2000-114-01        | 09/960,006 | 9/20/01        | Providing An Exclusive View Of A Shared Resource  |
| 112. | 50277-1633            | OID 2000-135-01        | 09/765,680 | 1/18/01        | Data Integrity Verification Mechanism   |
| 113. | 50277-1639            | OID1997-53-04con       | 09/775,886 | 2/2/01         | APPLICATION CODE CONVERSION ARCHITECTURE  |

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| 114. | 50277-1646            | OID 1993-06-CON2-R  | 09/757,399 | 1/5/01         | Method and Apparatus for Implementing Parallel Operations in a Database Management System  |
| 115. | 50277-1653            | OID 2000-166-01     | 09/871,853 | 5/31/01        | Method and Apparatus for Reducing Latency and Message Traffic During Data and Lock Transfer in a Multi-Node System                   |
| 116. | 50277-1678            | OID 1997-11-05CON   | 09/748,408 | 12/22/00       | Method and Apparatus for Making Available Data that was Locked by a Dead Transaction before Rolling Back the Entire Dead Transaction |
| 117. | 50277-1680            | OID 1997-003-02CON  | 09/758,628 | 1/10/01        | Method and Apparatus for Propagating Commit Times Between a Plurality of Database Servers  |
| 118. | 50277-1681            | OID 2000-198-01     | 09/872,267 | 5/31/01        | Techniques for Time-Based Retention of a Reusable Resource   |
| 119. | 50277-1682            | OID 2000-200-01     | 09/872,243 | 5/31/01        | DYNAMIC PARTITIONING OF A REUSABLE RESOURCE  |
| 120. | 50277-1683            | OID 2000-196-01 PRO | 60/293,844 | 5/24/01        | Techniques for Resuming a Transaction after an Error   |
| 121. | 50277-1687            | OID 2001-001-01 PRO | 60/285,577 | 4/20/01        | Method for Web Client Response-Time Measurement  |
| 122. | 50277-1688            | OID 2001-002-01     | 09/863,236 | 5/21/01        | Group Pruning from Cube, Rollup and Grouping Sets  |
| 123. | 50277-1689            | OID 2000-201-01     | 09/947,910 | 9/5/01         | Providing Content from Multiple Services   |
| 124. | 50277-1690            | OID 2000-202-01     | 09/948,135 | 9/5/01         | Accessing Data Stored at an Intermediary from a Service  |
| 125. | 50277-1691            | OID 2000-203-01     | 09/948,056 | 9/5/01         | Developing Applications Online   |
| 126. | 50277-1716            | OID 2001-035-01     | 09/872,646 | 5/31/01        | One Click Deployment   |
| 127. | 50277-1718            | OID 2001-026-01 PRO | 60/274,270 | 3/7/01         | Methods to Perform Disk Writes in a Distributed Shared Disk System Needing Consistency Across Failures                               |
| 128. | 50277-1719            | OID 2001-021-01     | 09/922,424 | 8/3/01         | Victim Selection for Deadlock Detection  |
| 129. | 50277-1724            | OID 1997-010-14 DIV | 09/810,120 | 3/15/01        | Approach for Accessing Large Objects   |
| 130. | 50277-1725            | OID 2001-026-01     | 10/091,618 | 3/4/02         | Methods to Perform Disk Writes in a Distributed Shared Disk System Needing Consistency Across Failures                               |
| 131. | 50277-1732            | OID 2001-020-01     | 10/044,457 | 1/11/02        | VISUALLY ORGANIZING AND HIGHLIGHTING A LIST OF ITEMS TO SHOW HOW THEY SATISFY MULTIPLE CRITERIA SELECTED BY A USER                   |
| 132. | 50277-1734            | OID 2001-032-01     | 09/866,143 | 5/25/01        | Management and Synchronization Application for Network File System   |
| 133. | 50277-1735            | OID 2001-037-01     | 09/912,458 | 7/24/01        | Distributed Service Aggregation and Composition  |
| 134. | 50277-1736            | OID 2001-038-01     | 09/866,111 | 5/25/01        | Mechanism for Automatically Configuring a Network Resource   |



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| 135. | 50277-1737                    | OID 2001-036-01       | 10/120,634       | 4/10/02                | Transforming Transactions To Increase Parallelism When Replicating  |
| 136. | 50277-1738                    | OID 2001-051-01       | 10/107,106       | 3/26/02                | Incremental Refresh of Materialized Views Containing Rank Function, and Rewrite of Queries Containing Rank or Rownumber or Min/Max Aggregate Functions Using Such A Materialized View |
| 137. | 50277-1744                    | OID 1997-06-05-con    | 09/894,640       | 6/27/01                | Using a Checkpoint to Manage Data that is Shared by a Plurality of Nodes  |
| 138. | 50277-1745                    | OID 1997-008-09-CON   | 09/843,388       | 4/25/01                | Method and System for Controlling Recovery Downtime   |
| 139. | 50277-1746                    | OID 2001-066-01       | 10/124,908       | 4/17/02                | Database Management System for Implementing Independent Database Actions in Response to Events of Interest  |
| 140. | 50277-1747                    | OID 2001-001-01       | 09/945,160       | 8/31/01                | TECHNIQUES FOR SERVER-CONTROLLED MEASUREMENT OF CLIENT-SIDE PERFORMANCE   |
| 141. | 50277-1748                    | OID 2001-052-01       | 10/118,203       | 4/5/02                 | Retry Technique for Multi-Tier Network Communication Systems  |
| 142. | 50277-1752                    | OID 2001-108-01-PRO   | 60/289,716       | 5/8/01                 | Customer Relationship Management  |
| 143. | 50277-1753                    | OID 2001-108-01       | 09/940,870       | 8/27/01                | Techniques for Managing Resources for Multiple Exclusive Groups   |
| 144. | 50277-1754                    | OID 2001-082-01       | 09/968,617       | 9/28/01                | TECHNIQUES FOR PEER-TO-PEER REPLICATION OF OBJECTS IN A RELATIONAL DATABASE   |
| 145. | 50277-1755                    | OID 2001-083-01       | 10/006,605       | 12/5/01                | Object-Oriented Materialized Views  |
| 146. | 50277-1756                    | OID 2001-084-01       | 09/968,568       | 9/28/01                | Incremental Refresh of Materialized Views For Many-to-Many Relationships  |
| 147. | 50277-1757                    | OID 2001-089-01       | 09/967,856       | 9/28/01                | TECHNIQUES FOR ADDING A MASTER IN A DISTRIBUTED DATABASE WITHOUT SUSPENDING DATABASE OPERATIONS AT EXTANT MASTER SITES  |
| 148. | 50277-1758                    | OID 2001-091-01       | 09/968,703       | 9/28/01                | Online Reorganization and Redefinition of Relational Database Tables  |
| 149. | 50277-1763                    | OID 2001-105-01       | 10/056,716       | 1/22/02                | Semantic Response to Lock Requests to Reduce Coherence Overhead in Multi-Node Systems   |
| 150. | 50277-1764                    | OID 2001-054-01       | 09/965,334       | 9/25/01                | TECHNIQUES FOR MODIFYING A COMPILED APPLICATION   |
| 151. | 50277-1766                    | OID 2001-125-01       | 10/040,578       | 12/28/01               | Property Bundles on a Per Instance Basis  |
| 152. | 50277-1767                    | OID 2001-126-01       | 10/040,500       | 12/28/01               | Categories on a Per Instance Basis  |



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| 153. | 50277-1768                    | OID 2001-127-01       | 10/040,499       | 12/28/01               | Policies on a Per Instance Basis   |
| 154. | 50277-1769                    | OID 2000-196-01       | 09/993,855       | 11/13/01               | Techniques for Resuming a Transaction after an Error   |
| 155. | 50277-1774                    | OID 2001-090-01       | 10/006,543       | 11/30/01               | Techniques for Adding Multiple Security Policies to a Database System  |
| 156. | 50277-1775                    | OID 1997-059-01-CON   | 09/896,373       | 6/28/01                | Partitioning Ownership of a Database Among Different Database Servers to Control Access to the Database                |
| 157. | 50277-1776                    | OID 2001-026-02       | 10/092,047       | 3/4/02                 | Managing Checkpoint Queues in a Multiple Node System   |
| 158. | 50277-1777                    | OID 2001-145-01 PRO   | 60/298,437       | 6/15/01                | MANAGING XML IN A DATABASE   |
| 159. | 50277-1779                    | OID 1997-06-05-CON2   | 09/894,636       | 6/27/01                | Transferring a Resource Between Caches of Different Nodes  |
| 160. | 50277-1782                    | OID 1997-06-05-CON5   | 09/894,757       | 6/27/01                | Recovering Data from a Failed Cache Using a Surviving Cache  |
| 161. | 50277-1783                    | OID 1997-06-05-CON6   | 09/894,635       | 6/27/01                | Managing a Resource Used by a Plurality of Nodes   |
| 162. | 50277-1784                    | OID 2001-154-01-PRO   | 60/301,310       | 6/26/01                | Business Rule Implementation Framework and Repository for Software Development   |
| 163. | 50277-1786                    | OID 2001-149-01       | 09/945,135       | 8/31/01                | Techniques for Managing Configuration for a System of Devices Arranged in a Network                                    |
| 164. | 50277-1787                    | OID 2001-150-01       | 09/945,438       | 8/31/01                | Techniques for Managing a Database System Including One or More Database Servers                                       |
| 165. | 50277-1794                    | OID 2000-006-04PRO    | 60/306,704       | 7/20/01                | Multimodal Session Support on Distinct Multichannel Protocol   |
| 166. | 50277-1803                    | OID 2001-124-01       | 10/154,751       | 5/23/02                | Partition Exchange Loading Technique for Fast Addition of Data to a Data Warehousing System                            |
| 167. | 50277-1804                    | OID 2001-112-01       | 10/084,642       | 2/26/02                | Evaluation of Rollups with Distinct Aggregates by Using Sequence of Sorts and Partitioning By Measures                 |
| 168. | 50277-1805                    | OID 2001-056-01       | 10/059,616       | 1/28/02                | Incremental Refresh of Materialized Views with Joins and Aggregates after Arbitrary DML Operations to Multiple Tables  |
| 169. | 50277-1806                    | OID 2001-180-01       | 09/968,067       | 9/28/01                | Technique for Moving Data Into a Database System   |
| 170. | 50277-1815                    | 2000-158-01           | 10/119,672       | 4/9/02                 | Consistent Read in a Distributed Database Environment  |
| 171. | 50277-1819                    | OID 2001-191-01PRO    | 60/326,052       | 9/28/01                | File Based Access Provided With a Database System  |
| 172. | 50277-1821                    | OID 2001-202-01       | 10/077,828       | 2/15/02                | Evaluation of Hierarchical Cubes By Nesting Rollups  |
| 173. | 50277-1822                    | OID 2001-203-01       | 10/084,597       | 2/26/02                | Evaluation of Grouping Sets by Reduction to Group-by Clause, with or without a Rollup Operator, Using Temporary Tables |

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| 174. | 50277-1825            | OID 2001-190-01-PRO  | 60/324,722 | 9/24/01        | Functional Specification for Multilanguage Application Debugging Infrastructure, RDBMS/PLSQL/JAVA |
| 175. | 50277-1838            | OID 2001-156-01      | 10/354,692 | 1/29/03        | Operator Approach for Generic Dataflow Designs  |
| 176. | 50277-1840            | OID 2001-198-01      | 10/177,440 | 6/20/02        | Linear Instance Mapping For Query Rewrite   |
| 177. | 50277-1841            | OID 1997-53-01-R     | 10/021,783 | 12/13/01       | Method and Apparatus for Copying Data That Resides in a Database                                  |
| 178. | 50277-1842            | OID 2001-208-01      | 10/155,412 | 5/23/02        | Partition Exchange Technique for Operating a Data Warehousing System                              |
| 179. | 50277-1845            | OID 2001-083-01PRO   | 60/326,275 | 9/28/01        | Object-Oriented Materialized Views  |
| 180. | 50277-1846            | OID 2001-210-01PRO   | 60/326,346 | 9/28/01        | BITMAP JOIN INDEX   |
| 181. | 50277-1847            | OID 2001-084-01-CIP  | 09/969,938 | 10/2/01        | Incremental Refresh of Materialized Views for Many-to-Many Relationships                          |
| 182. | 50277-1849            | OID 2001-211-01PRO   | 60/326,739 | 10/2/01        | IMPLEMENTING AN ETL TOOLKIT IN A DATABASE SYSTEM  |
| 183. | 50277-1850            | OID 2001-199-01      | 10/118,762 | 4/8/02         | Efficient Processing of Multi-Column And Function Based In-List Predicates                        |
| 184. | 50277-1853            | OID 2001-211-01      | 10/159,812 | 5/31/02        | Parallel Transfer of Data from One or More External Sources Into a Database System                |
| 185. | 50277-1854            | OID 2000-135-01CIP1  | 10/133,002 | 4/25/02        | Enhancements to Data Integrity Verification Mechanism   |
| 186. | 50277-1855            | OID 2001-175-01      | 10/160,585 | 5/30/02        | Automatic Discovery and Use of Column Correlations in Tables                                      |
| 187. | 50277-1857            | OID 2001-210-01      | 10/186,461 | 6/28/02        | Techniques for Eliminating Database Table Joins Based on a Join Index                             |
| 188. | 50277-1862            | OID 2001-190-01      | 10/144,144 | 5/10/02        | Techniques for Debugging Computer Programs Involving Multiple Programming Languages               |
| 189. | 50277-1863            | OID 2001-215-01      | 10/160,128 | 5/30/02        | Deferred Piggybacked Messaging Mechanism for Session Reuse  |
| 190. | 50277-1865            | OID 2001-190-02      | 10/143,890 | 5/10/02        | Techniques for Debugging Computer Programs Involving Multiple Computing Machines                  |
| 191. | 50277-1866            | OID 2001-214-01 PRO  | 60/337,359 | 11/30/01       | Realizing Session and Synchronous Semantics Based on Asynchronous Messaging Protocols             |
| 192. | 50277-1869            | OID 2000-111-01      | 10/020,088 | 12/12/01       | COMPUTER-BASED PRE-EXECUTION ANALYSIS AND VERIFICATION UTILITY FOR SHELL SCRIPTS                  |
| 193. | 50277-1870            | OID 2001-154-01-PRO2 | 60/346,736 | 1/7/02         | Generating Applications from XML Defining Structure of Application                                |
| 194. | 50277-1873            | OID 1996-43-02       | 08/873,644 | 6/11/97        | Method and Apparatus for Reducing Inefficiencies Caused by Sending Multiple Commands to a Server  |

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| 195. | 50277-1879            | OID 2001-214-01      | 10/097,389 | 3/12/02        | Servicing Requests that are Issued in a Protocol other than the Protocol Expected by the Service   |
| 196. | 50277-1889            | OID 2001-156-01-PRO  | 60/353,796 | 1/30/02        | Operator Approach for Data Flow Design   |
| 197. | 50277-1890            | OID 2002-012-01-PRO  | 60/353,270 | 2/1/02         | Rule Based Security System   |
| 198. | 50277-1895            | OID 2002-013-01      | 10/146,620 | 5/14/02        | Techniques for Generating Rules for a Dynamic Rule-Based System that Responds to Requests for a Resource on a Network                        |
| 199. | 50277-1896            | OID 2002-012-01      | 10/146,335 | 5/14/02        | Techniques for Dynamic Rule-Based Response to a Request for a Resource on a Network  |
| 200. | 50277-1897            | OID 2002-031         | 10/173,470 | 6/14/02        | REPRESENTING DELTAS BETWEEN XML VERSIONS USING XSLT  |
| 201. | 50277-1899            | OID 2002-033         | 10/173,466 | 6/14/02        | REDUCING MEMORY REQUIREMENTS NEEDED TO REPRESENT XML ENTITIES  |
| 202. | 50277-1900            | OID 2002-034         | 10/171,796 | 6/13/02        | Callback Structures for User Defined DOMs  |
| 203. | 50277-1901            | OID 2001-194-01-PRO  | 60/379,899 | 5/10/02        | Providing a Useable Version of a Data Item   |
| 204. | 50277-1904            | OID 2002-023-01      | 10/153,094 | 5/21/02        | Evaluating Queries with Outer Joins by Categorizing and Processing Combinations of Relationships Between Table Records                       |
| 205. | 50277-1922            | OID 2000-054-01      | 09/540,977 | 3/31/00        | A System for Creating and Maintaining a Web Site   |
| 206. | 50277-1923            | OID 2000-053-01      | 09/540,092 | 3/31/00        | A Self Service System for Web Site Publishing  |
| 207. | 50277-1938            | OID 2001-243-01-PRO  | 60/370,963 | 4/8/02         | Personalized Content Within a Global Namespace   |
| 208. | 50277-1939            | OID 1997-70-02 CON   | 10/158,757 | 5/29/02        | Method and System for Managing Storage Systems Containing Multiple Data Storage Devices  |
| 209. | 50277-1940            | OID 1997-71-01-DIV   | 10/125,911 | 4/18/02        | Performing 2-Phase Commit with Presumed Prepare  |
| 210. | 50277-1941            | OID 2002-045-01      | 10/159,223 | 5/31/02        | Method and Apparatus for Controlling Data Provided to a Mobile Device  |
| 211. | 50277-1943            | OID 2002-056-01 DIV1 | 10/133,541 | 4/25/02        | Method and Apparatus that Provides a Scalable Media Delivery System  |
| 212. | 50277-1945            | OID 1999-162-01      | 09/804,672 | 3/9/01         | System and Method for Maintaining Large-Grained Database Concurrency with a Log Monitor Incorporating Dynamically Redefinable Business Logic |
| 213. | 50277-1947            | OID 1999-165-01      | 09/662,776 | 9/15/00        | System and Method for Dynamically Evaluating an Electronic Commerce Business Model Through Click Stream Analysis                             |

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| 214. | 50277-1949             | OID 1999-182-01         | 09/627,818 | 7/28/00        | System and Method for Performing Data Backups with a Stochastic Scheduler in a Distributed Computing Environment                                   |
| 215. | 50277-1950             | OID 2000-115-01         | 09/654,998 | 8/31/00        | System and Method for Dynamically Generating Web Document Content Using a Rules-Base Engine and Implicit Template Hierarchy                        |
| 216. | 50277-1952             | OID 2000-138-01         | 09/898,407 | 7/3/01         | System and Method for Flexibly Storing Computer Telephony Messages as Structured Objects in a Unified Mail Store                                   |
| 217. | 50277-1953             | OID 2000-184-01         | 09/898,400 | 7/3/01         | System and Method for Providing Access to a Unified Message Store Logically Storing Computer Telephony Messages                                    |
| 218. | 50277-1955             | OID 2000-167-01         | 10/073,669 | 2/11/02        | System and Method for Providing a Java Code Release Infrastructure with Granular Code Patching   |
| 219. | 50277-1956             | OID 2000-191-01<br>PRO  | 60/272,386 | 2/28/01        | System and Method for Providing Highly Available Database Performance  |
| 220. | 50277-1957             | OID 2000-191-01         | 10/086,782 | 2/28/02        | System and Method for Providing Cooperative Resource Groups for High Availability Applications   |
| 221. | 50277-1958             | OID 2000-192-01         | 10/086,949 | 2/28/02        | System and Method for Providing Out-of-Band Notification of Service Changes  |
| 222. | 50277-1959             | OID 2000-193-01         | 10/087,494 | 2/28/02        | System and Method for Detecting Termination of an Application Instance Using Locks   |
| 223. | 50277-1960             | OID 2000-195-01         | 10/086,842 | 2/28/02        | System and Method for Pre-Compiling a Source Cursor into a Target Library Cache  |
| 224. | 50277-1961             | OID 2001-129-01         | 09/998,095 | 11/30/01       | System and Method for Actively Managing an Enterprise of Configurable Components   |
| 225. | 50277-1963             | OID 2001-176-01         | 09/997,759 | 11/30/01       | Application-Independent System and Process for Dynamically Generating Low-Complexity Graphics Embedded as Web Content Using a Tag-Delimited Script |
| 226. | 50277-1964             | OID 2001-197-01<br>PRO  | 60/335,653 | 10/24/01       | Construction Descriptor Segment for Constructing Objects/Record Instances  |
| 227. | 50277-1965             | OID 2001-243-01<br>PRO2 | 60/372,186 | 4/12/02        | Approach for Personalized Content Within a Global Namespace  |
| 228. | 50277-1966             | OID 2002-062-01<br>PRO  | 60/375,726 | 4/26/02        | Integrating Online Analytical Processing (OLAP) Functions Into A Relational Database Management System (RDBMS)                                     |
| 229. | 50277-1972             | OID 2001-262-01<br>PRO  | 60/340,146 | 12/14/01       | Eye Tracking in Web Search Tasks: Design Implications  |

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| 230. | 50277-1973            | OID 2002-064-01<br>PRO     | 60/379,870 | 5/10/02        | Online Analytical Processing (OLAP) Operations and Access Structures for Data Stored in a Relational Database  |
| 231. | 50277-1983            | OID 2002-070-01<br>PRO     | 60/378,800 | 5/7/02         | SQL Access to Data that Provides a File System Abstraction   |
| 232. | 50277-1984            | OID 1993-06-<br>CON2-R-DIV | 10/153,983 | 5/22/02        | Method and Apparatus for Implementing Parallel Operations in a Database Management System                      |
| 233. | 50277-1985            | OID 1997-069-01-<br>CON    | 10/171,728 | 5/28/02        | Maintenance of Hierarchical Index in a Relational System   |
| 234. | 50277-1986            | OID 2001-210-01-<br>PRO2   | 60/378,841 | 5/7/02         | Techniques for Eliminating Database Table Joins Based on a Join Index  |
| 235. | 50277-1987            | OID 2001-175-01-<br>PRO    | 60/378,844 | 5/7/02         | Automatic Discovery and Use of Column Correlations in Tables   |
| 236. | 50277-1988            | OID 2001-215-<br>01PRO     | 60/378,875 | 5/7/02         | Deferred Piggybacked Messaging Mechanism for Session Reuse   |
| 237. | 50277-1989            | OID 2001-235-<br>01PRO     | 60/378,872 | 5/7/02         | Providing Common Memory Management Code to Objects That Are Instances of Different Classes                     |
| 238. | 50277-1990            | OID 2001-236-<br>01PRO     | 60/378,871 | 5/7/02         | Simplified Deallocation of Memory For Programming Objects  |
| 239. | 50277-1991            | OID 2002-053-01<br>PRO     | 60/378,018 | 5/10/02        | Managing Expressions in a Database System  |
| 240. | 50277-1994            | OID 2001-189-01<br>PRO     | 60/385,020 | 5/30/02        | Method and Apparatus for Exchanging Communications Between Heterogeneous Applications                          |
| 241. | 50277-1995            | OID 2001-208-01<br>PRO     | 60/379,069 | 5/8/02         | Partition Exchange Technique for Operating a Database System   |
| 242. | 50277-1996            | OID 2001-211-01<br>PRO     | 60/379,072 | 5/8/02         | Automatic Parallel Access of External Data via External Tables   |
| 243. | 50277-1998            | OID 2002-034-<br>PRO       | 60/379,089 | 5/8/02         | Call Back Structures for User Defined DOMs   |
| 244. | 50277-2002            | OID 2002-024-01<br>PRO     | 60/379,827 | 5/10/02        | Techniques for Determining Effects on System Performance of a Memory Management Parameter                      |
| 245. | 50277-2003            | OID 2001-255-01<br>PRO     | 60/379,890 | 5/10/02        | System and Method for Providing a Client-Server Application Testing Framework for Network-Enabled Applications |
| 246. | 50277-2004            | OID 2002-070-02<br>PRO     | 60/379,872 | 5/10/02        | Versioning XDB   |
| 247. | 50277-2005            | OID 2001-157-01<br>PRO     | 60/382,360 | 5/20/02        | Footnotes in Online Oracle Reference Manuals   |
| 248. | 50277-2007            | OID 2002-088-01<br>PRO     | 60/378,016 | 5/10/02        | Time Based Sharing of Flashback-Cursors  |
| 249. | 50277-2008            | OID 2001-170-02            | 10/144,439 | 5/10/02        | Schema Evolution of Complex Objects  |
| 250. | 50277-2023            | OID 2002-099-01-<br>PRO    | 60/383,498 | 5/24/02        | Dynamic Disk Space Management in a Cluster Configuration   |
| 251. | 50277-2025            | OID 2002-031-<br>PRO       | 60/384,693 | 5/31/02        | Representing Deltas Between Versions Using XSLT  |

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| 252. | 50277-2026            | OID 2001-226-01-PRO  | 60/384,206 | 5/29/02        | Platform Independent Core Dump Analysis  |
| 253. | 50277-2027            | OID 1998-14-01 CON   | 10/167,207 | 6/10/02        | Anticipatory Lock Mode Conversions in a Lock Management System                             |
| 254. | 50277-2031            | OID 2001-235-01-PRO2 | 60/384,647 | 5/31/02        | Providing Common Memory Management Code to Objects that are Instances of Different Classes |
| 255. | 50277-2032            | OID 2001-236-01-PRO2 | 60/384,646 | 5/31/02        | Simplified Deallocation of Memory for Programming Objects                                  |
| 256. | 50277-2033            | OID 2002-033-PRO     | 60/384,583 | 5/31/02        | REDUCING MEMORY REQUIREMENTS NEEDED TO REPRESENT XML ENTITIES                              |
| 257. | 50277-2034            | OID 2001-197-01-PRO2 | 60/385,543 | 6/3/02         | Constructor Descriptor Segment for Constructing Object/Record Instances                    |